FIG.1A

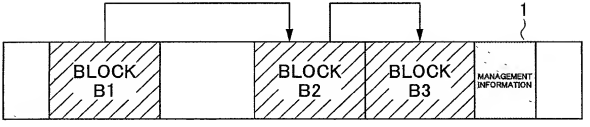

FIG.1B

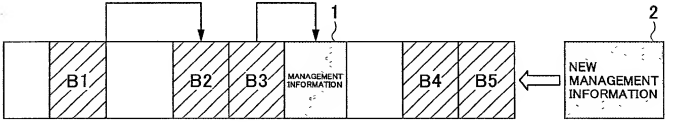

FIG.1C

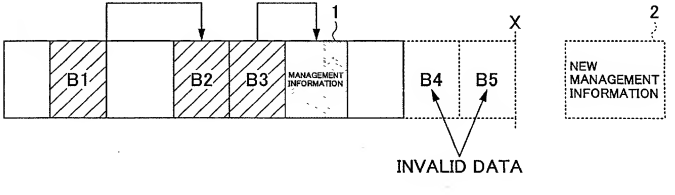

FIG.2A

MANAGEMENT INFORMATION
FILE MANAGEMENT INFORMATION

FILE NAME	FILE SIZE	LEAD BLOCK
XXXA	2560 BYTES	1
XXXB	1030 BYTES	6
XXXC	1024 BYTES	9
.....	.....	.....

FIG.2B

BLOCK ALLOCATION INFORMATION
(SUCCEEDING BLOCK IN PARENTHESES)

1(2)	2(3)	3(4)	4(5)	5(LAST)
6(7)	7(8)	8(LAST)	9(10)	10(11)
11(12)	12(LAST)	13(UNALLOCATED)	14(UNALLOCATED)	15(UNALLOCATED)
16(UNALLOCATED)	17(UNALLOCATED)	18(UNALLOCATED)	19(UNALLOCATED)	20(UNALLOCATED)
.....	.....	.....	.....	.....

FIG.2C

DATA
FILE XXXA

BLOCK NUMBER	BLOCK 1	BLOCK 2	BLOCK 3	BLOCK 4	BLOCK 5
DATA	DATA	DATA	DATA	DATA	DATA

FIG.2D

FILE XXXB

BLOCK NUMBER	BLOCK 6	BLOCK 7	BLOCK 8
DATA	DATA	DATA	DATA

FIG.2E

FILE XXXC

BLOCK NUMBER	BLOCK 9	BLOCK 10	BLOCK 11	BLOCK 12
DATA	DATA	DATA	DATA	DATA

FIG.3

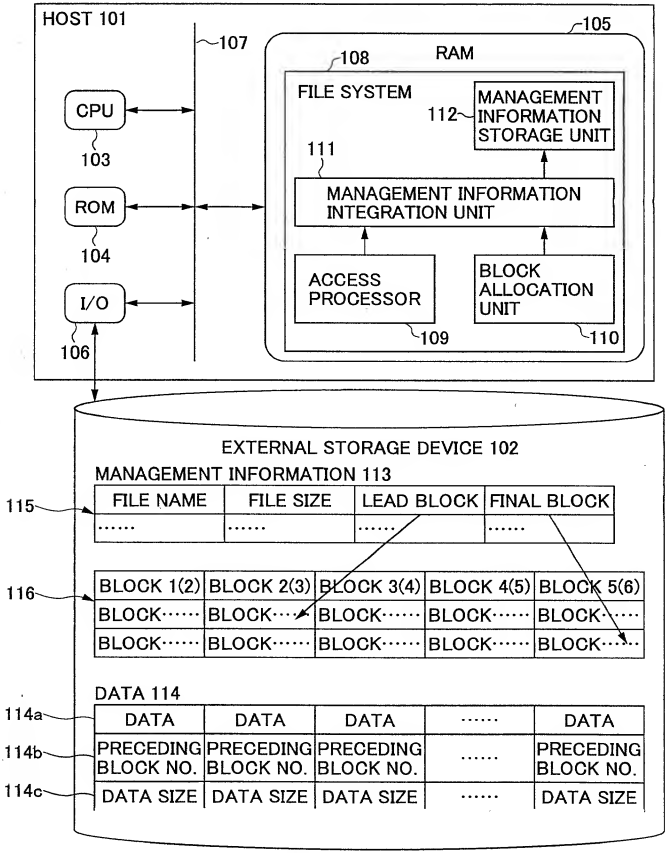
HOST 101
107
105
RAM
108
FILE SYSTEM
112
MANAGEMENT INFORMATION STORAGE UNIT
111
MANAGEMENT INFORMATION INTEGRATION UNIT
CPU
103
ROM
104
I/O
106
ACCESS PROCESSOR
109
BLOCK ALLOCATION UNIT
110
EXTERNAL STORAGE DEVICE 102
MANAGEMENT INFORMATION 113
115
FILE NAME
FILE SIZE
LEAD BLOCK
FINAL BLOCK
116
BLOCK 1(2)
BLOCK 2(3)
BLOCK 3(4)
BLOCK 4(5)
BLOCK 5(6)
BLOCK······
DATA 114
114a
114b
114c
DATA
PRECEDING BLOCK NO.
DATA SIZE

FIG.4

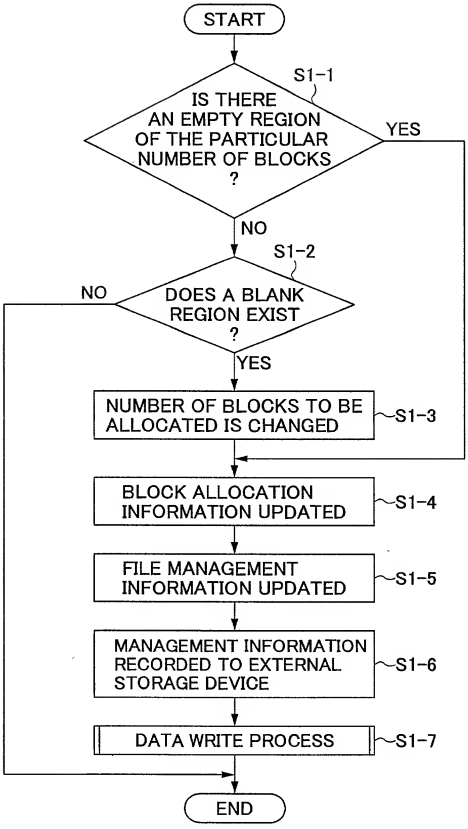
START
S1-1
IS THERE AN EMPTY REGION OF THE PARTICULAR NUMBER OF BLOCKS ?
YES
NO
S1-2
NO
DOES A BLANK REGION EXIST ?
YES
NUMBER OF BLOCKS TO BE ALLOCATED IS CHANGED
S1-3
BLOCK ALLOCATION INFORMATION UPDATED
S1-4
FILE MANAGEMENT INFORMATION UPDATED
S1-5
MANAGEMENT INFORMATION RECORDED TO EXTERNAL STORAGE DEVICE
S1-6
DATA WRITE PROCESS
S1-7
END

FIG.5

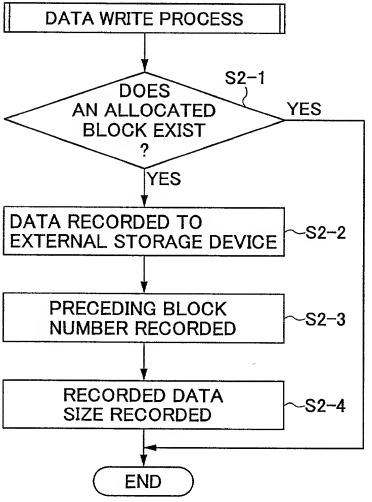

FIG.6

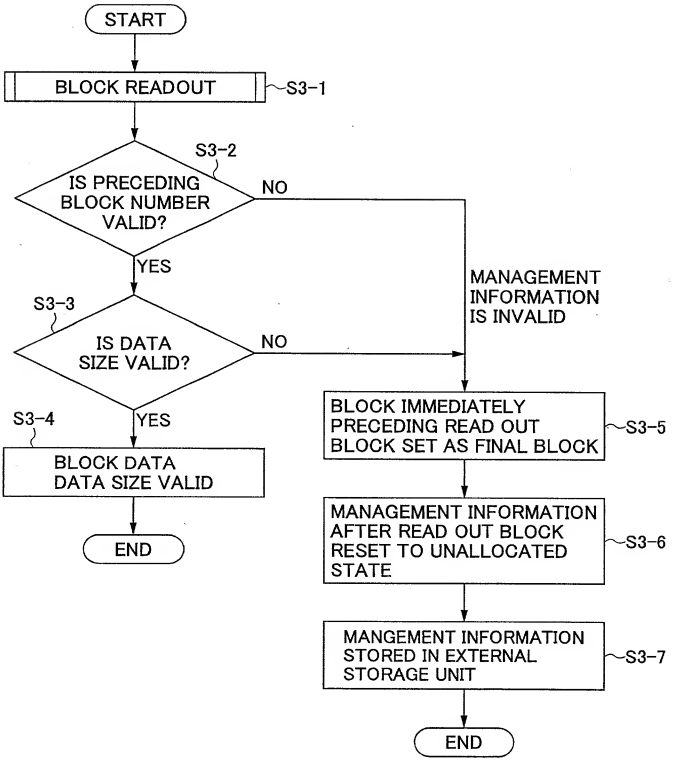

FIG.7A

MANAGEMENT INFORMATION 113

(1) FILE MANAGEMENT INFORMATION 115

FILE NAME	FILE SIZE	LEAD BLOCK	FINAL BLOCK	
XXXA	2560 BYTES	1	5	
XXXB	1030 BYTES	6	8	
XXXC	1024 BYTES	9	12	← FILE BEING CREATED
.....	.....	.....	.....	

FIG.7B

(2) BLOCK ALLOCATION INFORMATION
(SUCCEEDING BLOCK IN PARENTHESES) 116

1(2)	2(3)	3(4)	4(5)	5(LAST)
6(7)	7(8)	8(LAST)	9(10)	10(11)
11(12)	12(LAST)	13(UNALLOCATED)	14(UNALLOCATED)	15(UNALLOCATED)
16(UNALLOCATED)	17(UNALLOCATED)	18(UNALLOCATED)	19(UNALLOCATED)	20(UNALLOCATED)
.....	.....	.....	.....	.....

FIG.7C

DATA

(1) FILE XXXA

BLOCK NO.	BLOCK 1	BLOCK 2	BLOCK 3	BLOCK 4	BLOCK 5
DATA	DATA	DATA	DATA	DATA	DATA
PRECEDING BLOCK NO.	LEAD	1	2	3	4
DATA SIZE	512 BYTES	512 BYTES	512 BYTES	512 BYTES	512 BYTES

FIG.7D

(2) FILE XXXB

BLOCK NO.	BLOCK 6	BLOCK 7	BLOCK 8
DATA	DATA	DATA	DATA
PRECEDING BLOCK NO.	LEAD	6	7
DATA SIZE	512 BYTES	512 BYTES	6 BYTES

FIG.7E

(3) FILE XXXC

BLOCK NO.	BLOCK 9	BLOCK 10	BLOCK 11	BLOCK 12
DATA	DATA	DATA	DATA	DATA
PRECEDING BLOCK NO.	LEAD	9	10	11
DATA SIZE	512 BYTES	512 BYTES	512 BYTES	512 BYTES

FIG.8A

MANAGEMENT INFORMATION 113

FILE MANAGEMENT INFORMATION 115

FILE NAME	FILE SIZE	LEAD BLOCK	FINAL BLOCK	
XXXA	2560 BYTES	1	5	
XXXB	1030 BYTES	5	8	
XXXC	4096 BYTES	9	16	← FILE BEING CREATED
.....	.....	.....	.....	

FIG.8B

BLOCK ALLOCATION INFORMATION

(SUCCEEDING BLOCK IN PARENTHESES) 116

1(2)	2(3)	3(4)	4(5)	5(LAST)
6(7)	7(8)	8(LAST)	9(10)	10(11)
11(12)	12(LAST)	13(14)	14(15)	15(16)
16(LAST)	17(UNALLOCATED)	18(UNALLOCATED)	19(UNALLOCATED)	20(UNALLOCATED)
.....	.....	.....	.....	.....

FIG.8C

DATA (FILE XXXC)

BLOCK NO.	BLOCK 9	BLOCK 10	BLOCK 11	BLOCK 12
DATA	DATA	DATA	DATA	DATA
PRECEDING BLOCK NO.	LEAD	9	10	11
DATA SIZE	512 BYTES	512 BYTES	512 BYTES	512 BYTES
BLOCK NO.	BLOCK 13	BLOCK 14	BLOCK 15	BLOCK 16
DATA	UNWRITTEN	UNWRITTEN	UNWRITTEN	UNWRITTEN
PRECEDING BLOCK NO.	UNWRITTEN	UNWRITTEN	UNWRITTEN	UNWRITTEN
DATA SIZE	UNWRITTEN	UNWRITTEN	UNWRITTEN	UNWRITTEN

IMMEDIATELY FOLLOWING BLOCK ALLOCATION

FIG.8D

DATA (FILE XXXC)

BLOCK NO.	BLOCK 9	BLOCK 10	BLOCK 11	BLOCK 12
DATA	DATA	DATA	DATA	DATA
PRECEDING BLOCK NO.	LEAD	9	10	11
DATA SIZE	512 BYTES	512 BYTES	512 BYTES	512 BYTES
BLOCK NO.	BLOCK 13	BLOCK 14	BLOCK 15	BLOCK 16
DATA	DATA	DATA	DATA	DATA
PRECEDING BLOCK NO.	12	13	UNWRITTEN	UNWRITTEN
DATA SIZE	512 BYTES	512 BYTES	UNWRITTEN	UNWRITTEN

BEING WRITTEN TO AN ALLOCATED BLOCK

FIG.9A

MANAGEMENT INFORMATION 113

(1) FILE MANAGEMENT 115

FILE NAME	FILE SIZE	LEAD BLOCK	FINAL BLOCK	
XXXA	2560 BYTES	1	5	
XXXB	1030 BYTES	5	8	
XXXC	4096 BYTES	9	16	← FILE BEING CREATED
.....	.....	.....	.....	

FIG.9B

(2) BLOCK ALLOCATION INFORMATION
(SUCCEEDING BLOCK IN PARENTHESES) 116

1(2)	2(3)	3(4)	4(5)	5(LAST)
6(7)	7(8)	8(LAST)	9(10)	10(11)
11(12)	12(LAST)	13(14)	14(15)	15(16)
16(LAST)	17(UNALLOCATED)	18(UNALLOCATED)	19(UNALLOCATED)	20(UNALLOCATED)
.....	.....	.....	.....	.....

DATA (FILE XXXC)

FIG.9C

BLOCK NO.	BLOCK 9	BLOCK 10	BLOCK 11	BLOCK 12
DATA	DATA	DATA	DATA	DATA
PRECEDING BLOCK NO.	LEAD	9	10	11
DATA SIZE	512 BYTES	512 BYTES	512 BYTES	512 BYTES
BLOCK NO.	BLOCK 13	BLOCK 14	BLOCK 15	BLOCK 16
DATA	DATA	DATA	DATA	DATA
PRECEDING BLOCK NO.	12	13	14	UNWRITTEN
DATA SIZE	512 BYTES	512 BYTES	16 BYTES	UNWRITTEN

WHEN WRITING THE LAST DATA

FIG.9D

MANAGEMENT INFORMATION 113

(1) FILE MANAGEMENT 115

FILE NAME	FILE SIZE	LEAD BLOCK	FINAL BLOCK
XXXA	2560 BYTES	1	4
XXXB	1030 BYTES	5	8
XXXC	3000 BYTES	9	15
.....	.....	.....	.....

FIG.9E

(2) BLOCK ALLOCATION INFORMATION
(SUCCEEDING BLOCK IN PARENTHESES) 116

1(2)	2(3)	3(4)	4(5)	5(LAST)
6(7)	7(8)	8(LAST)	9(10)	10(11)
11(12)	12(13)	13(14)	14(15)	15(LAST)
16(UNALLOCATED)	17(UNALLOCATED)	18(UNALLOCATED)	19(UNALLOCATED)	20(UNALLOCATED)
.....	.....	.....	.....	.....

UPDATING THE MANAGEMENT INFORMATION

FIG.10A

MANAGEMENT INFORMATION 113
FILE MANAGEMENT INFORMATION 115

FILE NAME	FILE SIZE	LEAD BLOCK	FINAL BLOCK
XXXA	2560 BYTES	1	4
XXXB	1030 BYTES	5	8
XXXC	2048 BYTES	9	12
.....	.....	.....	.....

FILE BEING CREATED

FIG.10B

BLOCK ALLOCATION INFORMATION
(SUCCEEDING BLOCK IN PARENTHESES) 116

1(2)	2(3)	3(4)	4(5)	5(LAST)
6(7)	7(8)	8(LAST)	9(10)	10(11)
11(12)	12(LAST)	13(UNALLOCTED)	14(UNALLOCATED)	15(UNALLOCATED)
16(UNALLOCATED)	17(UNALLOCATED)	18(UNALLOCATED)	19(UNALLOCATED)	20(UNALLOCATED)
.....	.....	.....	.....	.....

FIG.10C

DATA (FILE XXXC)

BLOCK NO.	BLOCK 9	BLOCK 10	BLOCK 11	BLOCK 12
DATA	DATA	DATA	DATA	DATA
PRECEDING BLOCK NO.	LEAD	9	10	11
DATA SIZE	512 BYTES	512 BYTES	512 BYTES	512 BYTES
BLOCK NO.	BLOCK 13	BLOCK 14	BLOCK 15	BLOCK 16
DATA	UNWRITTEN	UNWRITTEN	UNWRITTEN	UNWRITTEN
PRECEDING BLOCK NO.	UNWRITTEN	UNWRITTEN	UNWRITTEN	UNWRITTEN
DATA SIZE	UNWRITTEN	UNWRITTEN	UNWRITTEN	UNWRITTEN

FIG.11

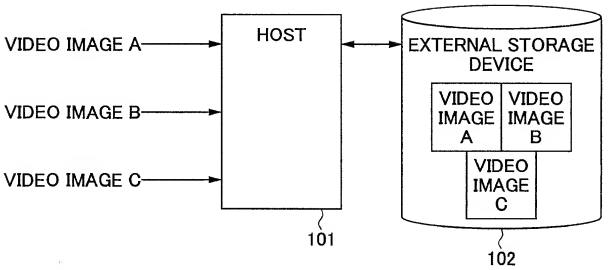

FIG.12A

INDIVIDUAL VIDEO IMAGE DATA INFORMATION

VIDEO IMAGE NAME	ENCRYPTION RATE	NUMBER OF BLOCKS	PRIORITY DEGREE
VIDEO IMAGE A	Vv(Mbps)	4	1
VIDEO IMAGE B	2Vv(Mbps)	4	1
VIDEO IMAGE C	Vv(Mbps)	4	1

FIG.12B

SCHEDULING RULES

ACCESS SEQUENCE	VIDEO IMAGE NAME	NUMBER OF WRITE BLOCKS
1	VIDEO IMAGE B	4
2	VIDEO IMAGE A	4
3	VIDEO IMAGE B	4
4	VIDEO IMAGE C	4

FIG.13A

MANAGEMENT INFORMATION 113
FILE MANAGEMENT 115

FILE NAME	FILE SIZE	LEAD BLOCK	FINAL BLOCK
VIDEO IMAGE A	4096 BYTES	5	24
VIDEO IMAGE B	8192 BYTES	1	28
VIDEO IMAGE C	4096 BYTES	13	32
.....	.....	.....	.....

FILE BEING CREATED

FIG.13B

BLOCK ALLOCATION INFORMATION
(SUCCEEDING BLOCK IN PARENTHESES)

1(2)	2(3)	3(4)	4(9)	5(6)
6(7)	7(8)	8(21)	9(10)	10(11)
11(12)	12(17)	13(14)	14(15)	15(16)
16(29)	17(18)	18(19)	19(20)	20(21)
21(22)	22(23)	23(24)	24(LAST)	25(26)
26(27)	27(28)	28(LAST)	29(30)	30(31)
31(32)	32(LAST)	33(UNALLOCATED)	34(UNALLOCATED)	35(UNALLOCATED)
.....	.....	.....	.....	.....

FIG.13C

DATA

BLOCK NO.	1	2	3	4	5	6	7	8	9	10
DATA	B	B	B	B	A	A	A	A	B	B
PRECEDING BLOCK NO. AND DATA SIZE	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
BLOCK NO.	11	12	13	14	15	16	17	18	19	20
DATA	B	B	C	C	C	C	UN-	UN-	UN-	UN-
PRECEDING BLOCK NO. AND DATA SIZE	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
BLOCK NO.	21	22	23	24	25	26	27	28	29	30
DATA	UN-	UN-	UN-	UN-	UN-	UN-	UN-	UN-	UN-	UN-
PRECEDING BLOCK NO. AND DATA SIZE	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
BLOCK NO.	31	32	33	34	35	36	37	38	39	40
DATA	UN-	UN-	UN-	UN-	UN-	UN-	UN-	UN-	UN-	UN-
PRECEDING BLOCK NO. AND DATA SIZE	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

FIG.14A

MANAGEMENT INFORMATION (IN HOST RAM)
FILE MANAGEMENT

FILE NAME	FILE SIZE	LEAD BLOCK	FINAL BLOCK	PROVISIONALLY ALLOCATED BLOCK
VIDEO IMAGE A	2560 BYTES	5	24	37
VIDEO IMAGE B	1030 BYTES	1	24	33
VIDEO IMAGE C	4096 BYTES	13	16	29
.....	.....	.....	.....	.....

FIG.14B

BLOCK ALLOCATION INFORMATION
(SUCCEEDING BLOCK IN PARENTHESES)

1(2)	2(3)	3(4)	4(9)	5(6)
6(7)	7(8)	8(21)	9(10)	10(11)
11(12)	12(17)	13(14)	14(15)	15(16)
16(LAST)	17(18)	18(19)	19(20)	20(25)
21(22)	22(23)	23(24)	24(LAST)	25(26)
26(27)	27(28)	28(LAST)	29(UNALLOCATED)	30(UNALLOCATED)
33(UNALLOCATED)	32(UNALLOCATED)	.....	.....	.....

FIG.14C

MANAGEMENT INFORMATION (IN HOST RAM)
FILE MANAGEMENT

FILE NAME	FILE SIZE	LEAD BLOCK	FINAL BLOCK	PROVISIONALLY ALLOCATED BLOCK
VIDEO IMAGE A	2048 BYTES	5	8	21
VIDEO IMAGE B	4096 BYTES	1	12	17
VIDEO IMAGE C	2048 BYTES	13	16	29
.....	.....	.....	.....	.....

FIG.14D

BLOCK ALLOCATION INFORMATION
(SUCCEEDING BLOCK IN PARENTHESES)

1(2)	2(3)	3(4)	4(9)	5(6)
6(7)	7(8)	8(LAST)	9(10)	10(11)
11(12)	12(LAST)	13(14)	14(15)	15(16)
16(LAST)	17(UNALLOCATED)	18(UNALLOCATED)	19(UNALLOCATED)	20(UNALLOCATED)
21(UNALLOCATED)	22(UNALLOCATED)	23(UNALLOCATED)	24(UNALLOCATED)	25(UNALLOCATED)
26(UNALLOCATED)	27(UNALLOCATED)	28(UNALLOCATED)	29(UNALLOCATED)	30(UNALLOCATED)
31(UNALLOCATED)	32(UNALLOCATED)	.....	.....	.....

FIG.14E

DATA (EXTERNAL STORAGE DEVICE)

BLOCK NO.	1	2	3	4	5	6	7	8	9	10
SUCCEEDING BLOCK	2	3	4	9	6	7	8	13	10	11
DATA	B	B	B	B	A	A	A	A	B	B
PRECEDING BLOCK NO. AND DATA SIZE	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
BLOCK NO.	11	12	13	14	15	16	17	18	19	20
SUCCEEDING BLOCK	12	17	14	15	16	29	18	19	20	25
DATA	B	B	C	C	C	C	B	B	B	B
PRECEDING BLOCK NO. AND DATA SIZE	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
BLOCK NO.	21	22	23	24	25	26	27	28	29	30
SUCCEEDING BLOCK	22	23	24	37	26	27	28	33	UN-	UN-
DATA	A	A	A	A	B	B	B	B	UN-	UN-
PRECEDING BLOCK NO. AND DATA SIZE	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....